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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,736	07/10/2001	Daigo Morizumi	CU-2590 RJS	8472

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EXAMINER	
DICUS, TAMRA	
ART UNIT	**PAPER NUMBER**
1774	6

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A9-6

Office Action Summary	Application No.	Applicant(s)	
	09/901,736	MORIZUMI ET AL.	
	Examiner	Art Unit	
	Tamra L. Dicus	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 May 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8 and 10-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8 and 10-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

This Office Action is responsive to the amendment filed 5-23-03. The Examiner acknowledges cancellation of claims 7 and 9. The Examiner withdraws the 112 rejections due to amendments.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6, 8, 10-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,536,218 to Ganho in view of USPN 5,196,080 to Mizobuchi et al., USPN 6,308,630 to Kurokawa et al., USPN 5,335,315 to Yoshida et al., and USPN 4,124,947 to Kuhl et al.

Ganho teaches a hiding coat/layer composition that is removed by scratching (scratch layer) to reveal a message on printed substrates like paper to form articles such as a lottery ticket. Printing patterns (equivalent to a pattern layer formed pattern-wise) may also be applied over the hiding coat. Such description is equivalent to providing a pattern closest to a substrate. The hiding composition is made of waxes such as Carnuaba wax, a powdered metal such as powdered aluminum pigment, further comprising carbon black pigment, and resins. See col. 1, lines 25-35, col. 1, line 65-col. 2, line 15, col. 2, lines 35-68, and col. 6.

Ganho does not specifically teach adding EVA resin, or defining the scratch layer as a transfer sheet. Despite these deficiencies, Mizobuchi teaches a heat transfer sheet that comprises

a base film of PET or paper with a hot melt ink layer composition of carbon black, coloring agents, carnauba wax, and aluminium powders that are compatible with an EVA resin. See col. 1, lines 45-58, col. 2, lines 55-68, and col. 4, lines 15-65.

Both Ganho and Mizobuchi are analogous art because they are from the same field of endeavor, namely coating technology. Hence, it would have been obvious to one of ordinary skill in the art to modify the hiding layer of Ganho to include it on a heat transfer sheet on a substrate film for the purpose of printing on a film since Mizobuchi teaches both paper and polymer films of EVA are functional equivalents as polymer films improve smoothness for printing purposes see col. 1, lines 45-58 and col. 2, lines 55-68. Further using EVA is obvious to add since Mizobuchi teaches it is suitable for use in a transfer sheet.

That the hiding layer is able to be thermally transferred .....and removed..." is not germane since it has been held that an element that is "being able to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

Additionally, while Ganho does not disclose the pattern layer range from 5 to 85% per 2 cm2 of the transfer layer in instant claim 1, or a transferable scratch area being 30 to 150% of the transfer-receiving material of instant claim 4, it would have been obvious to one of ordinary skill in the art to produce a pattern layer from 5 to 85% per 2 cm2 and a transferable scratch/hiding layer in a range from 30 to 150% since Kurokawa teaches the size and shape of a pattern may differ depending upon what one desires the printed product to be configured, thereby stating that there is no limitation to the size and shape of a pattern on a transfer portion/receiving material (see Figure 2, col. 9, lines 60-65, and col. 10, lines 52-68). It is also obvious to produce a

transferable scratch/hiding layer in a range from 30 to 150% because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Kuhl teaches suitable graphic patterns for imprinting substrates. Kuhl teaches pattern ratios are functions of the amount of coloring added to a substrate; refer to col. 3, lines 60-68, and col. 4, lines 45-58. Also Yoshida teaches methods for determining graphic area ratios. Yoshida clearly states the amount of ink is controlled by the relative areas of the pattern to be printed at col. 1, lines 40-53. Yoshida explains the aforementioned pattern ratio range is optimizable as in the printing process it is necessary to control the amount of printing ink depending upon the pattern ratio of a particular graphic element within the overall graphic pattern at col. 1, lines 54-60. Regarding the way in which the material is to be transferred is immaterial since it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Further, the characteristic of the scratch and pattern layer in instant claim 1 is not taught by Ganho. It would have been obvious to one of ordinary skill in the art to produce a pattern ratio between 5 and 85% per 2 cm^2 since Kurokawa teaches the size and shape of a pattern may differ depending upon what one desires the printed product to be configured, thereby stating that there is no limitation to the size and shape of a pattern on a transfer portion/receiving material (see Figure 2, col. 9, lines 60-65, and col. 10, lines 52-68). It is also obvious to produce a pattern ratio between 5 and 85% per 2 cm^2 since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Kuhl teaches suitable graphic patterns for imprinting substrates. Kuhl teaches pattern ratios are

functions of the amount of coloring added to a substrate; refer to col. 3, lines 60-68, and col. 4, lines 45-58. Also Yoshida teaches methods for determining graphic area ratios. Yoshida clearly states the amount of ink is controlled by the relative areas of the pattern to be printed at col. 1, lines 40-53. Yoshida explains the aforementioned pattern ratio range is optimizable as in the printing process it is necessary to control the amount of printing ink depending upon the pattern ratio of a particular graphic element within the overall graphic pattern at col. 1, lines 54-60.

The pencil scratch hardness property of claim 5 is inherent as the same components are used.

Ganho does not disclose a peelable layer. However, Mizobuchi teaches a further releasable layer may be added to improve releasability between the base film and ink layer. The Examiner takes the position that the peelable layer is a functional equivalent of a releasable layer, since both are used to provide easier removable properties from a substrate and are made of the same materials. See col. 7, line 50-col. 8, line 20.

While Ganho discloses it is known to print a pattern on a hiding layer (col. 2, line 14), such indicia as a design, text, or picture (col. 4, line 35) may be produced (instant claim 8). Although he does not disclose a pattern in the form of a logo, firm name, or a mark, printing with the ink inherently makes a mark. Logo, name, and mark are all indicia and are synonymous to pattern, design, text, or picture.

While Ganho discloses a coloring agent such as pigment in a hiding layer at col. 2, line 45, Ganho doesn't disclose additional components wax and an additional thermoplastic in the pattern layer of instant claim 10. However, since the hiding layer of Ganho teaches it is suitable

to print a pattern, an additional pattern layer is obvious to include to produce any design or text at col. 4, line 35 and since the same materials are used in the hiding layer. Furthermore, Kurokawa teaches a pattern layer that may be made of ink at col. 3, lines 29-30.

Ganho does not specifically disclose further comprising a coloring agent transfer layer, an adhesive layer, a main protective layer, or a second peeling layer (instant claims 6, 11, 12, 17, and 18). However, Kurokawa discloses an intermediate transfer sheet applicable to various cards and security devices that comprise a pattern layer, a coloring agent transfer layer of heat-meltable ink of black, cyan, yellow, or magenta, and a transferable adhesive layer in a side by side, alternative relation to a transfer sheet at col. 3, lines 29-30, col. 12, line 58-col. 13, line 10, and col. 14, lines 20-41. The transfer portion has a multilayer structure and are laminated at col. 19, lines 15-24. Kurokawa further teaches a peelable layer (second peeling layer) of acrylic resin at col. 20, lines 45-65, and a release layer of adhesives acrylic, cellulose, or EVA copolymers (see col. 16, lines 20-45), and releasing material, wax (may also function as a peeling/adhesive layer) since Kurokawa teaches peeling strength may be regulated by the content of releasing material added at col. 22, lines 43-68. A protect later is formed over the printed substrate, and may be of thermoplastic resin or wax, see col. 17, line 1-9, col. 18, line 15-30, col. 22, lines 28-31, and col. 24, lines 19-45 and as part of the transfer portion (col. 16, line 57-58). Kurokawa's substrate film is of PET or paper at col. 15, lines 48-60. See further Example A1 and col. 18, lines 49-68. Hence it would have been obvious to one of ordinary skill in the art to modify the hiding layer to further include:

i. a coloring agent transfer layer in a side by side relation in order to provide high gradation and colored detection as taught by Kurokawa at col. 12, line 68 and col. 14, lines 20-21,

ii. an adhesive layer in a side by side relation to increase adhesive strength as taught by Kurokawa at col. 13, lines 9,

iii. a second peelable layer because Kruokawa teaches at col. 20, line 52 the advantage of peeling a transfer portion from a substrate, and

iv. a protective layer for protecting a pattern by preventing deterioration of the image at col. 1, line 57.

For the record, since Kurokawa teaches compatibility of adjacent layers of films, it is obvious to include them in any order as they are laminated.

Response to Arguments

1. Applicant's arguments filed 5-23-03 have been fully considered but they are not persuasive.

2. In response to applicant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

3. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant alleges Ganho does

not teach transferring a hiding layer from a thermal transfer sheet. Ganho is used to teach printed materials for lottery forms (inclusive of Applicant's printed scratch layer transfer sheet) having hiding composition is made of waxes such as Carnuaba wax, a powdered metal such as powdered aluminum pigment, further comprising carbon black pigment, and resins. See col. 1, lines 25-35, col. 1, line 65-col. 2, line 15, col. 2, lines 35-68, and col. 6.

4. Applicant further alleges that Mizobuchi does not teach a hiding layer being transferable. Both Ganho and Mizobuchi are analogous art because they are from the same field of endeavor, namely coating technology. Both Ganho and Mizobuchi provide transferable properties since the same materials as Applicant are used.

5. Applicant alleges Kurokawa does not describe a hiding layer capable of being thermally transferred and scratched off after transfer. That the hiding layer is able to be thermally transferred .....and removed..." is not germane since it has been held that an element that is "being able to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. Kurokawa is used to teach the size and shape of a pattern may differ depending upon what one desires the printed product to be configured, thereby stating that there is no limitation to the size and shape of a pattern on a transfer portion/receiving material (see Figure 2, col. 9, lines 60-65, and col. 10, lines 52-68).

6. Applicant contends Yoshida and Kuhl do not teach a hiding performance can be improved by providing a pattern layer on a hiding layer. In response to applicant's argument that a hiding performance can be improved by providing a pattern layer on a hiding layer, the fact that applicant has recognized another advantage which would flow naturally from following the

suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Yoshida is used teaching methods for determining graphic area ratios, clearly stating the amount of ink is controlled by the relative areas of the pattern to be printed at col. 1, lines 40-53. Kuhl teaches pattern ratios are functions of the amount of coloring added to a substrate; refer to col. 3, lines 60-68, and col. 4, lines 45-58.

7. Request for reconsideration and withdrawal of the 103 rejection is denied.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-8329 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tamra L. Dicus
Examiner
Art Unit 1774

August 10, 2003

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700